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ABSTRACT

In the context of large-scale primary and secondary school innovation projects in Belgium and the Netherlands, this paper examines the adaptation and construction of a version of the SoC-Questionnaire (SoC-Q) for Teachers. The SoC-Q was adapted from the Concerns-Based Adoption Model designed to identify teachers' concerns about an innovation. The paper also presents findings, discusses the use of questionnaires in large-scale projects, and describes ongoing research. Factor analysis of the questionnaire provides several subscales: awareness, personal/informational, consequences for pupils, management, collaboration, and refocusing based on experiences with pupils. These subscales provide a basis for comparing the findings of the original and adapted SoC-Q's. Teacher profiles derived from this questionnaire illustrate how these data are used within the framework of large-scale projects and allow the formulation of some general conclusions concerning innovation implementation. The study assumes such projects are influenced by five characteristics: the innovation itself, innovation policy, school organization, interventions/strategies, and teachers. These characteristics are used to develop semistructured interviews analyzed in conjunction with SoC-Q's. Five tables focus on the SoC-Q. Nine figures provide data on the development of teachers' concerns during innovations and implementation factors. Three appendixes provide an overview of the subscales, followup data, and an analysis of a first interview. (PB)

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STUDYING CHANGE IN PRIMARY AND SECONDARY SCHOOLS IN BELGIUM AND THE NETHERLANDS

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Paper presented at the annual AERA-meeting,
Montreal april 11 - 17, 1983

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The paper gives first an overview of the most important characteristics of so-called large-scale innovation. In the context of such large-scale innovation-projects the theoretical assumptions and the related procedures and instruments of the Concern-Based Adoption Model (CBAM) have been adapted and tested.

In the remaining part of the paper attention is payed to the construction of an adapted version of a questionnaire for identification of teachers concerns involved in an innovation, to some results that contain a few indications as to the meaning of some findings and to the use of this questionnaire in large-scale projects.

In a third part, an overview is given of ongoing and future research work.

Studying change in Primary and Secondary Schools in Belgium and the Netherlands °
A contribution to the Symposium : International Perspectives on Educational Change

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1. CBAM and large-scale innovations in Belgium and the Netherlands

Typical of most of the innovation-projects in Belgium and the Netherlands is their so-called large scale. In this introduction we are not treating the issue of the large-scale point of view in detail (see : van der Berg & Vandenberghe, 1983, in press). We confine ourselves to some important characteristics.

A large-scale innovation is characterized by the fact that the innovation plans are initiated by the government (Ministery of Education). The government proposes a complex innovation more than the field of education itself.

In the second place it is a question of a multiplicity of goals which are mostly formulated in an abstract and general way. In connection with this multiplicity of goals we find that different innovations must be implemented coherently and simultaneously. Radical changes have to take place in the domain of the curriculum of pupils' evaluation , of the reporting of results to pupils and parents, of the grouping of pupils. In the sphere of the school, structural changes crop up as well : teachers must work together in subject-workgroups ; arrangements about contents and methods are required ; regular contacts should be made with the parents ; internal change facilitators should try to coordinate the concrete work, etc. In the third place the policy plans and the resolutions cover a longer term. The implementation of a large-scale project lasts for several years and is put in several stages ; not everything can be tackled simultaneously. So one often starts with a limited number of schools and then one tries to transfer experiences, insights and materials to other schools.

What precedes further means that not only schoolfocused developments are involved, but also activities that exceed the school; those activities are often intended to make other schools receptive to the project concerned. In other words, within the projects not only the school itself is set a task, but there is also the task of giving a stimulus to the development of other schools.

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°° In collaboration with Dr. R.M. Van den Berg, K. P.C., The Netherlands.

Finally many authorities and people are involved in the support and the facilitation. Mostly one distinguishes external and internal change facilitators. This diversity with regard to facilitation brings on that in many cases several types of innovation-strategies are simultaneously applied regarding the same target groups.

It is in the context of some such large-scale innovation-projects that the theoretical assumptions of CBAM as well as the developed instruments are tested and adapted. This led among others to the adaptation of the SoC-Questionnaire for teachers and of the SoC-Questionnaire for Change Facilitators in view of the Belgian and Dutch situation ; it also led to an adjusted translation of the LoU-Interview and to the use of the Taxonomy of Intervention for the description and analysis of interventions within the framework of large-scale projects. About all this there were detailed reports (R.M. van den Berg & R. Vandenberghe, 1981). Besides this a workbook and materials were also developed for the organization of CBAM-workshop. These workshops are mainly attended by change facilitators.

In this paper we will consecutively pay attention to the construction of an adapted version of the SoC-Q for Teachers, to some results that contain a few indications as to the meaning of these results and to the use of the SoC-Q for Teachers in large-scale projects.

2. Adaptation and construction of the SoC-Q for teachers

In a first stage the 35 items of the original Austin-Questionnaire (Hall, George, Rutherford, 1977) were translated. Taking into account the meaning of the different stages 22 new items were formulated. The researchers of the R&D Center for Teacher Education (Austin) have checked, with the cooperation of a student born and raised in the Netherlands, if the translated and added statements rendered the meaning of each stage in a satisfactory way. This led to an interim questionnaire with 57 items.

Next this interim questionnaire was submitted to Belgian and Dutch teachers, working in Primary and Secondary schools. In doing so a variety of innovations was aimed at. Table 1 contains a survey of the innovations and the number of teachers

Table 1 : Projects and teachers involved in the construction of the SoC-Questionnaire for Teachers

	Belgium	The Netherlands
Primary schools	R.P.S. : individualized reading instruction; first and second grade (n = 145)	ISMA : project for individualized instruction (n = 62)
Secondary schools	R.S.S. : reform towards a comprehensive type of secondary school (n = 300)	M.A.V.O. : project for individualized instruction (n = 214)
	T.S.S. : preparing the implementation of the R.S.S. (n = 335)	K.P.C. : project for individualized instruction (n = 132)
	T.S.S. (n = 396)	

R.P.S. = Renewed Primary School
R.S.S. = Renewed Secondary School
T.S.S. = Traditional Secondary School
I.S.M.A. = Project for individualized instruction for Primary Schools

M.A.V.O. = Middelbaar Algemeen Vormend Onderwijs (Intermediate General Secondary Education)

K.P.C. = Katholiek Pedagogisch Centrum
Catholic Pedagogic Center ('s Hertogenbosch, The Netherlands)

A factor-analysis was applied to these data, according to the procedure of defining the principal components with varimax-rotation.
A six-, seven- and eight-factor-solution were compared. For the recording of a statement in a certain factor a minimum loading of .30 was used each time. With regard to the contents the seven-factor-solution led to the most meaningful description of the structure.

These seven factors were regarded as seven subscales ; on these subscales two item-analyses were carried out with successive iterations in order to obtain subscales with a maximal reliability (α-coefficient).
In table 2 a survey of the final questionnaire is to be found.

Table 2 : SoC-Questionnaire for Teachers : structure, number of items, α - coëfficients

Stages	Number items	α - coëfficient
Awareness	7	.769
Personal/ Informational	12	.895
Consequences for pupils	5	.801
Management	10	.876
Collaboration	8	.845
Refocusing based on experiences with pupils	5	.730
Refocusing	5	.744

A complete description of the seven subscales can be found in appendix 1.
The correlations between the seven subscales and at the same time an indication of the relative homogeneity of each subscale appear in table 3.

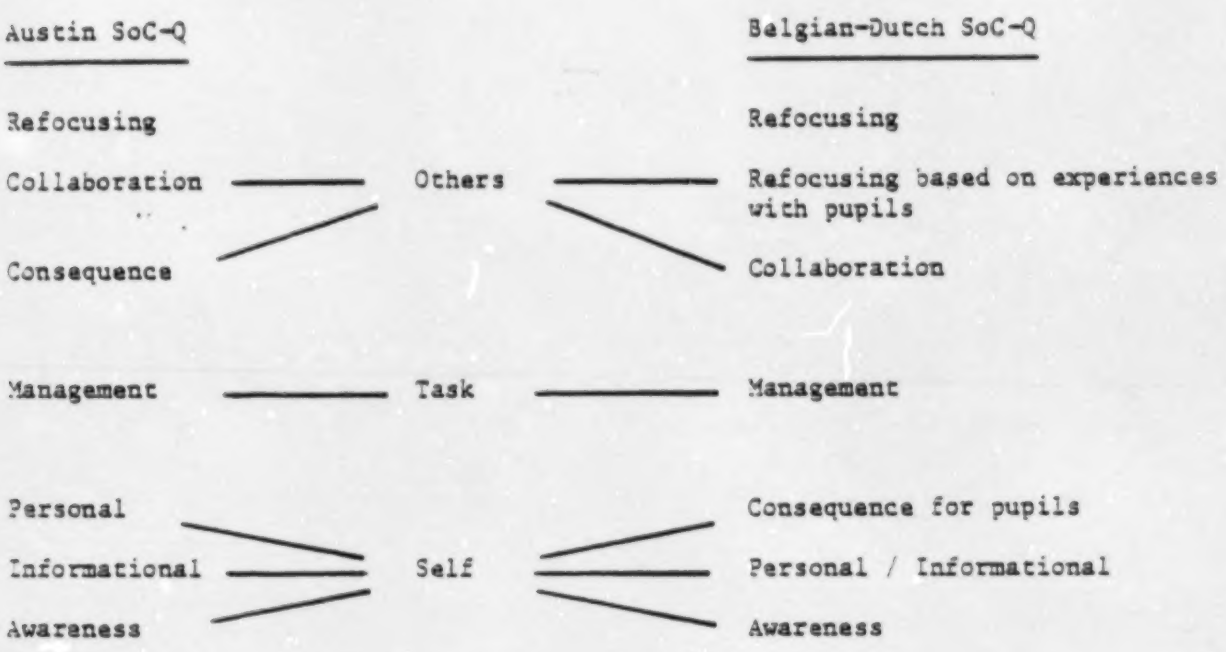
Table 3 : SoC Questionnaire for Teacher : correlations between 7 scales (n = 1067)

	Awareness	Personal/ Informational	Consequences for pupils	Management	Collaboration	Refocusing exp.pupils	Refocusi
Awareness	-	.49	.41	.36	-.29	-.17	.02
Personal/ Informational		-	.54	.45	.13	.05	.17
Consequences for pupils			-	.46	-.12	.10	.30
Management				-	-.10	.04	.24
Collaboration					-	.54	.13
Refocusing/exper. with pupils						-	.33
Refocusing							-

3. Discussion of the SoC-Questionnaire for Teachers

Now comes a concise discussion of the seven subscales (or the seven stages); we particularly pay attention to a comparison with the original American questionnaire.
A general comparison of the structure of the Austin SoC-Q and the Belgian-Dutch SoC-Q is to be found in figure 1.

Figure 1 : Structure of the Austin SoC-Q and the Belgian-Dutch SoC-Q for Teachers



We will recur to the differences between both structures. First we give the correlations between the original seven subscales and the Belgian-Dutch seven subscales in table 4.

Table 4 : Correlations between the Austin 7 scales and the Belgian-Dutch 7 scales (n=1585)

Belgian-Dutch-Q. \ Austin-Q.	Awareness	Informational	Personal	Management	Consequence	Collaboration	Refocusing
Awareness	.90	.58	.49	.33	.06	.28	.06
Personal/ Informational	.44	.90	.91	.42	.38	.20	.25
Consequence for pupils	.38	.56	.49	.43	.47	- .10	.37
Management	.43	.40	.48	.94	.24	- .08	.28
Collaboration	- .28	.03	.06	- .08	.37	.91	.26
Refocusing/exper. with pupils	- .16	.08	.13	.07	.68	.53	.63
Refocusing	.07	.07	.05	.25	.28	.08	.72

3.1. Awareness

Taking into account the substance of the statements (see appendix 1) and the quite high correlation (.90) with the original awareness-scale, we can assume that the subscale of the Belgian-Dutch SoC-Questionnaire has the same meaning as it has in the Austin Questionnaire.

3.2. Personal-Informational

Here we find a conspicuous difference. The two subscales "Information" and "Personal" which are distinguished in the Austin SoC-Q appear together in the Belgian-Dutch version. Supposing that the difference between both forms of concerns can perhaps be found among so called "non-users", factor-analyses were carried out upon groups of "non-users" (in this case teachers of T.S.S. and of T.S.S.-in preparation). Neither for these groups was it possible to ascertain the difference between "Personal" and "Informational". This new subscale correlates quite well the Austin subscale "Informational" (.90) and with "Personal" (.91).
We want to link the meaning of the "Personal/Informational" subscale to one of the characteristics of large-scale innovation-projects (see 1). A teacher who scores high on this subscale is especially interested in changes that will occur in his personal worksituation, in the way in which he must prepare his daily work, in the time needed to realize the innovation, but he also wants to get the chance to study and/or discuss the information about the innovation and he wants to know how his colleagues feel about it and what they are doing. In the subscale as a whole the "personal concerns" stand out more clearly than the "informational concerns". We believe this to be the result of the general and vague nature of many of the goals of large-scale innovation-projects and of the fact that teachers wonder whether they will be able to bring about simultaneously and coherently the numerous concrete innovations contained in this project. It is not excluded that at first the teacher feels overwhelmed and explicitly expresses his worries about the expected activities ; in this respect he hopes that receiving some information can be of help to him.

3.3. Consequences for pupils

Here too a striking difference is at stake compared to the Austin SoC-Q. Although we also use the word "consequences" in this case, this subscale

apparently has another meaning than it has in the American questionnaire. The subscale "consequences for pupils" correlates with "Information" (.56), but also relatively well with "Personal" (.49) and with "Consequence" (.47). These data, together with the substantial meaning of the items, have led to attributing the following meaning to this new subscale. In the same way as the need exists for general information about the innovation and about the significance of it for oneself as a teacher (Personal/Informational), one also desires to hear something about the value of the innovation for the pupils. As a teacher one wants to find out as soon as possible about the possibilities of the innovation in view of a certain group of pupils one is experienced with. This interpretation at the same time explains the position this subscale acquires with regard to the other subscales (as a form of "self-concern"). At this point we also want to relate the meaning of this subscale to the issue of large-scale educational innovations. The fact that a teacher quite early puts questions about the meaning of the innovation for the pupils (or his/her pupils) depends, according to us, on the numerous obscurities of large-scale innovation-projects. The problems the teacher experiences himself, are, as it were, expressed via problems he anticipates among his pupils. (Moreover, one clearly comes across this same concern in talk with parents !)

In the second place it is also plausible that teachers quite early want to acquire insight into the value of the innovation for the (their) students from the, possibly implicit, point of view that they are, as a teacher, evaluated on the basis of the results their pupils attain. The questions raised by the teacher, his worries about the innovation might result in weaker achievements by the pupils. This certainly does not do any good to his image as a teacher. Consequently he wishes to dedicate himself to that innovation if he is sure that it leads to greater successes by his pupils. That is why we consider the subscale "Consequences for pupils" as a form of self-concern.

3.4 Management

Here the similarity to the Austin subscale is remarkable (r = 94). Further comment is not required.

3.5. Collaboration

The same remark is valid here as for the previous subscale. The significance of the collaboration is the same as in the Austin Questionnaire (r = .91).

3.6. Refocusing based on experiences with pupils

This subscale correlates quite well with two subscales from the Austin Questionnaire, viz. with "Consequence" (.68) and with "Refocusing" (.63). These correlations and the substance of the statements themselves lead to interpreting this subscale as a form of commitment which expresses itself in wishes regard to a reconsideration of the innovation, especially a reconsideration based on experiences with the pupils. In other words, to a certain extent this subscale shows a similarity with the Austin subscale "Consequence"; furthermore the emphasis is laid upon the refocusing of the innovation. The latter also means that a general involvement regarding refocusing takes form in a more specific way, notably reconsideration as far as this is possible on the basis of the achievements pupils obtain.

3.7. Refocusing

Concerning this last subscale the similarity with the Austin subscale is striking (r = .72). The statements included in this subscale also refer to the presence of ideas to introduce more or less concrete changes.

4. Discussion of some results

The few results offered below, are derived from different large-scale projects in Belgium and the Netherlands. Beforehand we remark that most of the results coincide with the Austin results. In a first stage of our inquiry we have used those results for evaluative ends. That is to say we have employed the SoC-profiles as an indication for the degree of implementation of an innovation (4.1.).
In the near future - research on that topic is going on - we want to use SoC-profiles (as well as LoU-results) as indicators in the framework of large-scale projects. In this issue the central question is : what is the indicative value of a certain SoC-profile of teachers who are involved in a large-scale innovation-project ? Or put differently : from what facts can we explain and understand a certain profile or a certain development ? Investigating the possibilities of the use of a SoC-profile as an indicator, seems to us especially useful for facilitators. A consequence of this question is that additional data are gathered by means of another research in-

strument (in our instance : a semi-structured interview) about a number of important aspects of a large-scale project (see 4.3.). Apart from determining subscales, c.q. stages (see 3) the question as to the sequence of those stages is of course an important matter.
In paragraph 3 we have described the stages in a certain sequence. The correlations offered in table 3 indicate that this might be the correct order. Still it remains important, by means of follow-up-research, to study this development further. For the moment we have some data at our disposal in this respect (see 4.2.).

4.1. SoC-profiles and evaluation of large-scale projects

In this paragraph we deal with some profiles in order to illustrate how these data can be used within the framework of an evaluation of large-scale projects. In this respect we assume that the form of the profiles allows us to formulate some general conclusions concerning the implementation of an innovation. In this way we presume the relatively high scores in the stages "Awareness", "Personal/Informational", "Consequences for pupils" and "Management" to be an indication for a defective or a starting implementation. Consequently we think that relatively high scores on the other subscales point at an advanced implementation. However, it is obvious that this fact is only one of the possible data that can be gathered when evaluating large-scale innovation-projects.

In figure 2 we find a so called "user-profile". From this we can deduce that on the average the principles of the ISMA-project (the Netherlands) and the developed material are applied in a satisfactory way. As has already been pointed out it is necessary to collect other evaluative data in view of more final statements.

Figure 2 : Stages of concern Profile for Teachers of the ISMA-Project

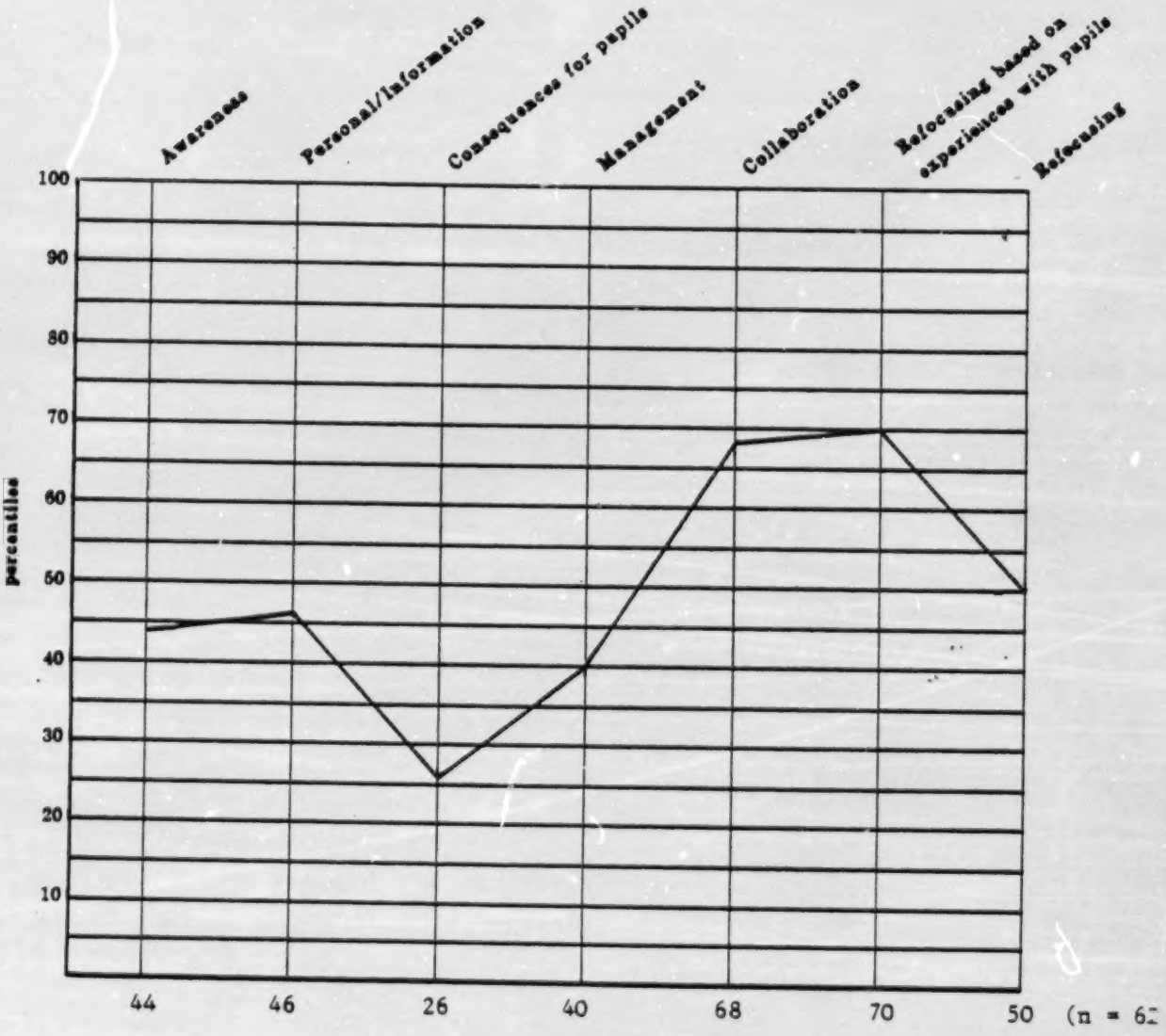
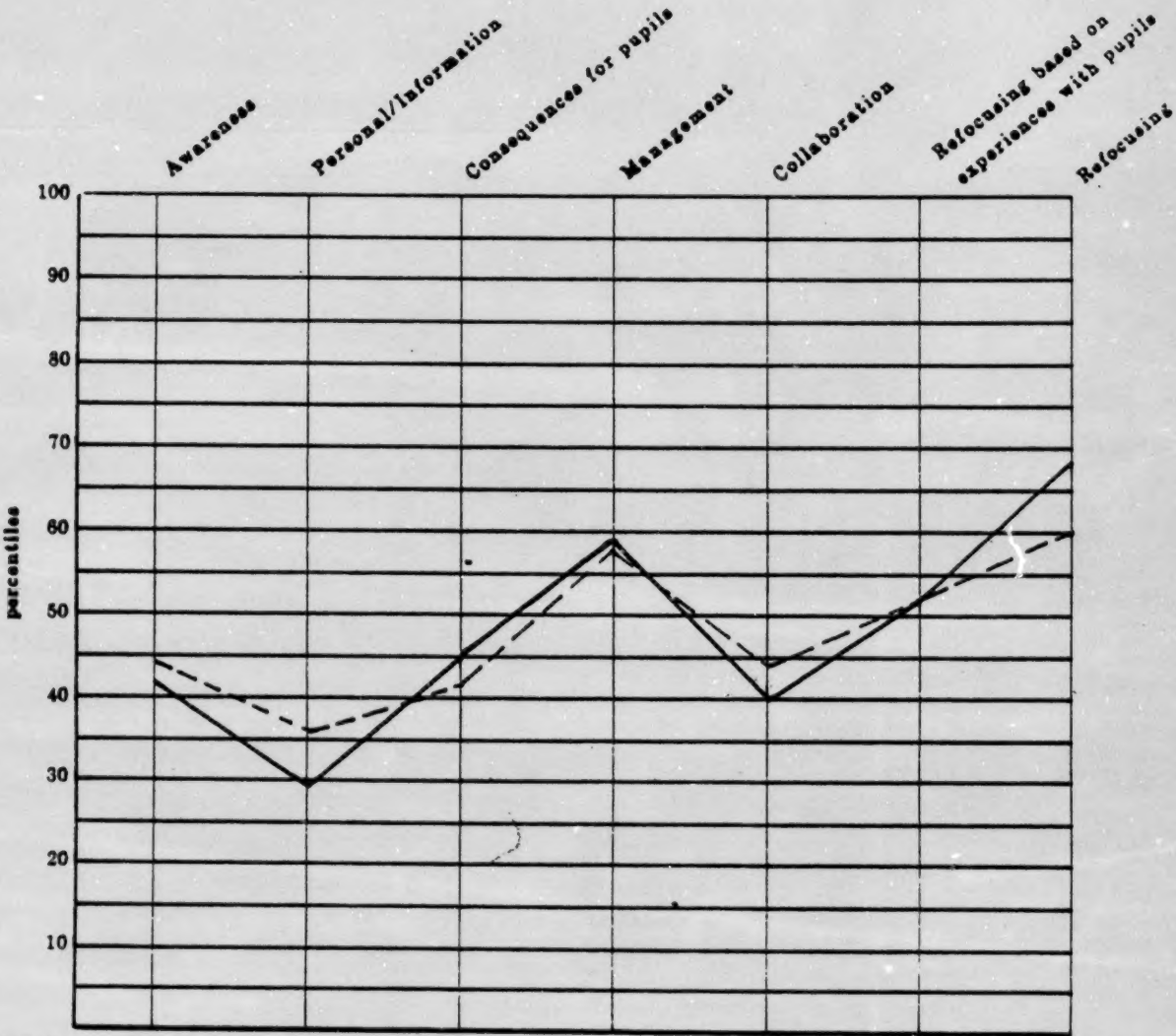


Figure 3 contains data about two generations of schools in the MAVO-project (the Netherlands). E-schools are the so called experimental schools which had already been included in the innovation-project for four years at the time of the research. The V-schools (the so called "volgscholen") on the other hand had only been in the project for two years.

Figure 3 : Stages of Concern Profile for Teachers of the MAVO-Project; E-Schools and V-Schools

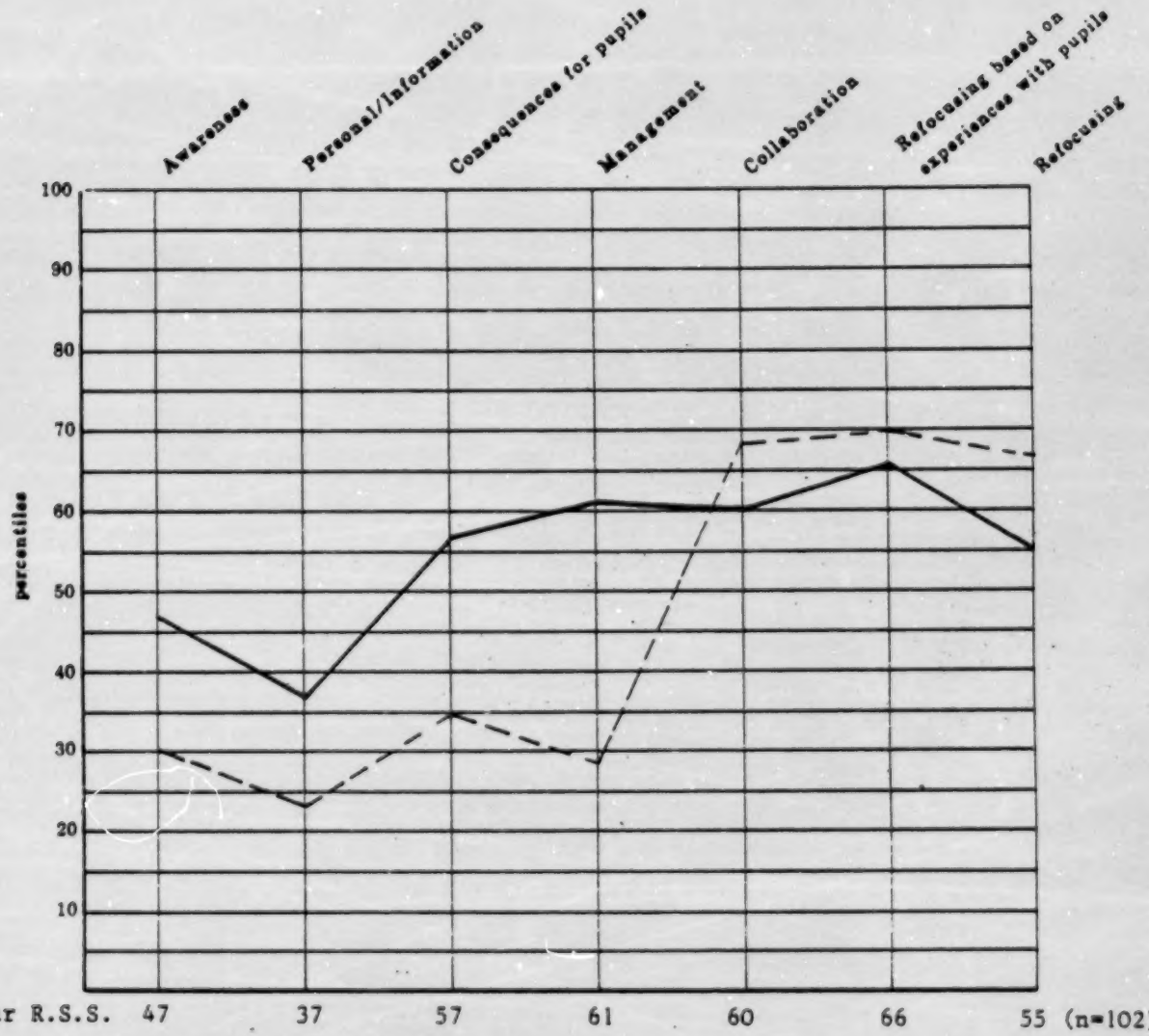


—— E-schools	42	29	45	59	40	52	68	(n = 8-
---- V-schools	44	36	42	58	44	52	60	(n =13(

It is obvious that the two generations of schools are not clearly distinct. For both groups of teachers it remains true that they score relatively high on "Management". Even teachers with a four year experience still have problems with the management of an innovation. Furthermore one observes that both groups also have relatively high scores in the last two stages, which can be regarded as an indication of a certain resistance. At this point we also want to remark explicitly that for a correct interpretation of such profiles other evaluative data (or descriptive data concerning the development of the project) must be added.

Figure 4 contains data about teachers who have participated in the project Renewed Secondary Schools (R.S.S.) (Belgium) respectively for one year and six years. From this it appears that it is possible with the adapted SoC-questionnaire to distinguish clearly two groups of teachers. It is also important to state the difference between both groups clearly coincides with the assumption concerning the hypothetical development of the concerns. More experienced teachers (six years) stand apart from less experienced teachers (one year) because of lower scores in the first four stages and higher scores in the three last ones. Consequently we consider this fact to be an important indication for the validity of the questionnaire.

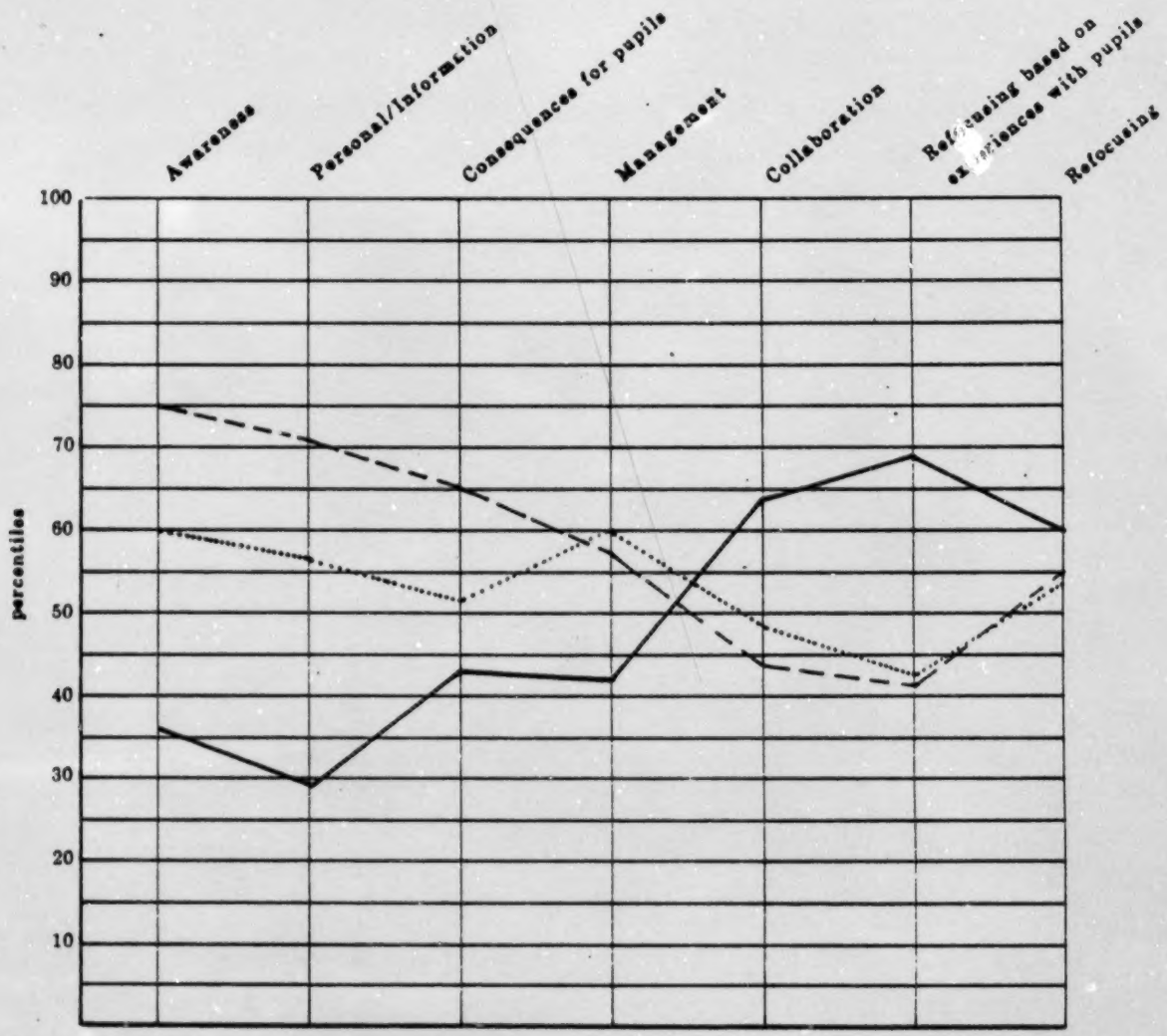
Figure 4 : Stages of Concern Profiles for Teachers of the Renewed Secondary Schools



	Awareness	Personal/Information	Consequences for pupils	Management	Collaboration	Refocusing based on experiences with pupils	Refocusing	
—— 1 year R.S.S.	47	37	57	61	60	66	55	(n=102)
---- 6 year R.S.S.	30	23	35	28	68	70	67	(n=157)

The profiles in figure 5 confirm the data of figure 4. Three groups of teachers with a different experience in R.S.S. differ considerably.

Figure 5 : Stages of Concerns Profiles for Teachers of the Renewed Secondary School, the Traditional Secondary School and the Traditional Secondary School - in preparation

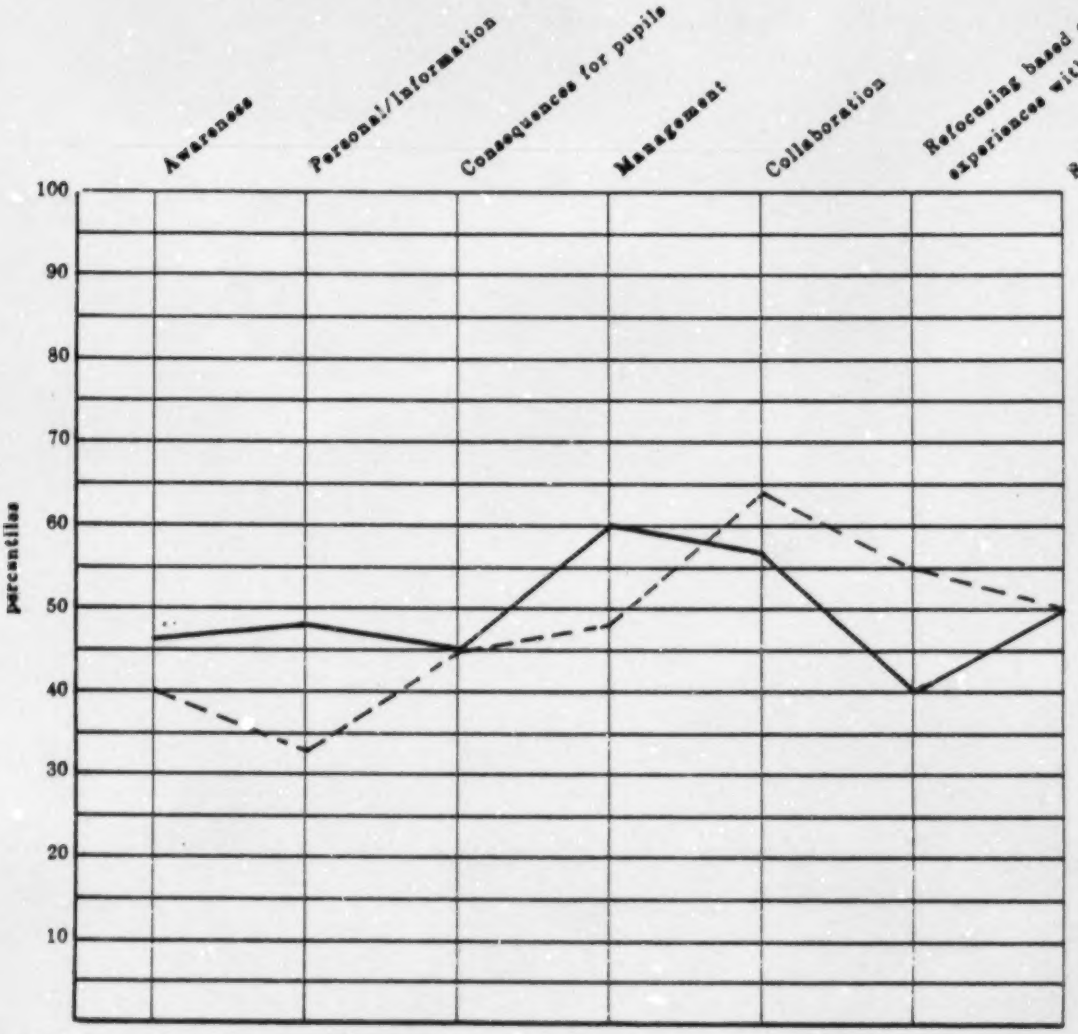


—— R.S.S.	36	29	43	42	64	69	60 (n=300)
---- T.S.S.	75	71	65	57	44	42	55 (n=396)
.... T.S.S. - in prep.	60	57	52	60	48	43	54 (n=335)

4.2. Development of the concerns

From figures 4 and 5 can already be deduced that the development of the concern among teachers in large-scale projects links up with the hypothetical development as postulated by the Austin-researchers. More final data about the development of the concerns can be found in the results of a follow-up-research in which teachers answer the SoC-Q on different moments. Such follow-up-data are being collected at the moment. Below a number of profiles that refer to teachers from the R.S.S. (Belgium) are to be found. In figure 6 there is the profile of 73 teachers who answered the SoC-Q in the schoolyears '79-'80 and '80-'81. During the schoolyear '79-'80 those teachers were involved in program preparing for the R.S.S. The following schoolyear ('80-'81) was the first innovation-year for them (see appendix 2, table a for the groups means). The answering of the questionnaires occurred respectively in February 1980 (schoolyear '79-'80) and November 1980 (schoolyear '80-'81).

Figure 6 : Stages of Concerns Profiles for Teachers of the Renewed Secondary School : Febr. 1980 and Nov. 1980

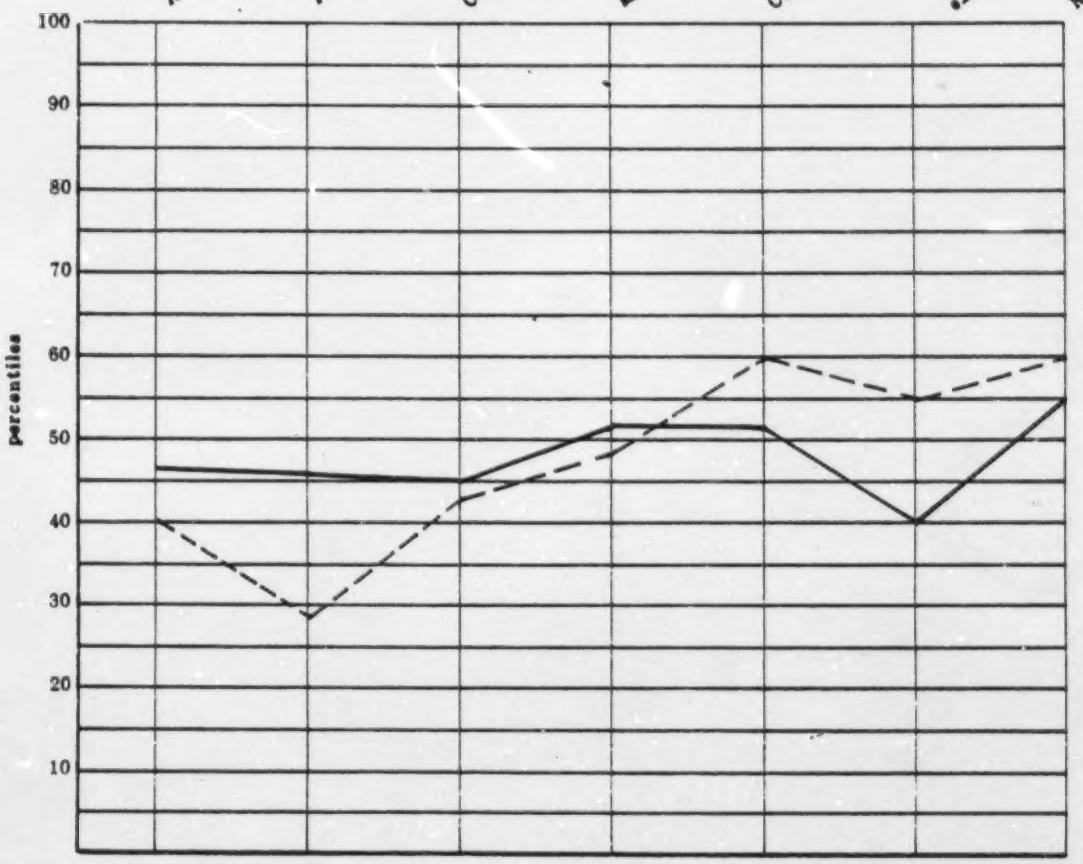


—— Febr. 1980	47	48	45	60	57	40	50	(n=73)
--- Nov. 1980	40	33	45	48	64	55	50	(n=73)

Except for the subscale "Consequences for pupils" the teachers in the preparatory stage ('79-'80) score relatively higher on the first four subscales and relatively lower on the subscales "Collaboration" and "Refocusing based on experiences with pupils". In other words : on the subscales which refer to the "self-concerns" a decrease is perceived in the first innovation-year ('80-'81), with the exception of the subscale "Consequences for pupils" where the decrease is not significant. On the subscale "Management" referring to "task-concern" we also observe a decrease. The profile on the subscales referring to other-concern increases on the contrary. On the suscale "Refocusing" the average remains stable. This evolution in the commitment affirms the hypothetical development presented by F. Fuller and later on elaborated by the researchers of the R&D Center for Teacher Education.

Figure 7 contains the profiles of 58 teachers. The first interview took place in February 1980 (schoolyear '79-'80). These teachers also prepared themselves for the R.S.S. at that moment. The second interview was in October 1981 (schoolyear '81-'82); then the teachers already were in their second innovation-year (see also table b, in appendix 2).

Figure 7 : Stages of Concerns Profiles for Teachers of the Renewed Secundary School : Febr. 1980 and Oct. 1981



—— Febr. 1980	47	46	45	57	57	40	55 (n=58)
---- Oct. 1981	40	28	43	48	60	55	60 (n=58)

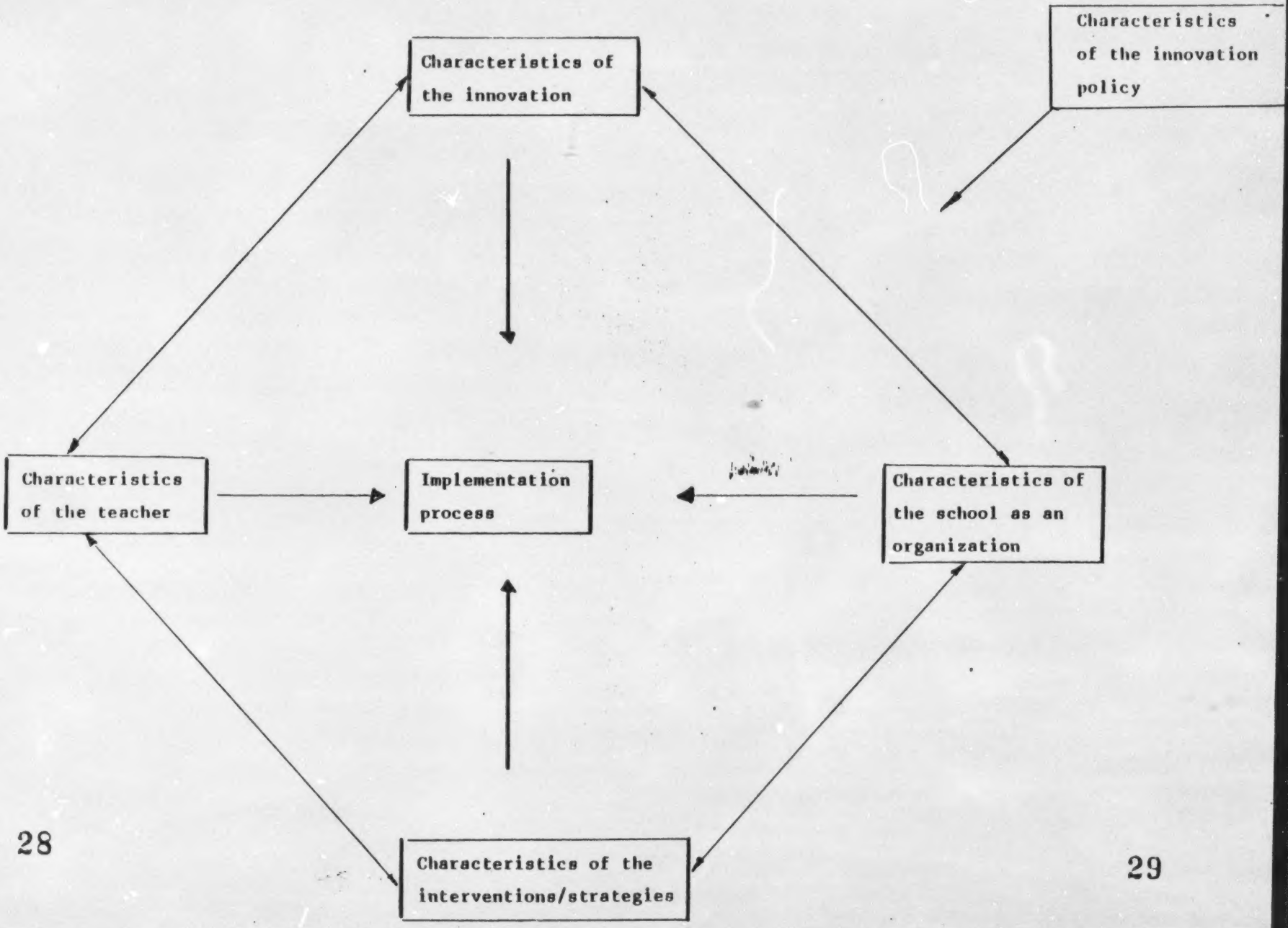
The profile of the teachers after a two year experience in the R.S.S. is characterized by a relatively low score on the subscale "Awareness", "Personal/Informational", "Consequences for pupils" and "Management" and by a relatively high score on "Collaboration", "Refocusing based on experiences with pupils" and "Refocusing". Comparing both profiles we observe an evolution coinciding with the hypothetical development. The involvement decreases on the subscales referring to the self- and taskconcerns and increases on the subscales referring to other-concern. In summary until now we have not found any counterindication for respecting the sequence in which the stages were temporarily put.

4.3. SoC-profiles as indicators

In this last paragraph we will concisely go into the research which is being carried out and to which we want to pay more attention in the near future. We have already stated earlier that we are going to make use of the CBAM-approach for the analysis and evaluation of large-scale projects. Large-scale projects are complex innovations in which a large number of schools and teachers take part. The implementation of a large-scale project is a long-term process.

At this moment we are analyzing a number of large-scale projects (pre-school-level; primary-school-level and secondary-school-level) within the following frame of references. We start from the hypothesis that the local implementation process is influenced by five categories of variables presented schematically in figure 8.

Figure 8 : Factors affecting the implementation process


Characteristics of the innovation
Characteristics of the innovation policy
Characteristics of the teacher
Implementation process
Characteristics of the school as an organization
Characteristics of the interventions/strategies

This general frame of references is used as a basis for drawing up a semi-structured interview. The principal and a number of teachers are interviewed. In this manner we try to receive concrete information about the way in which certain aspects of a large-scale project are realized in a local school. Together with this interview - which in particular cases is held twice in an adapted version - the SoC-questionnaire is also presented (at different moments) as well as the LoU-interview. Thus it becomes possible to describe the development in the Concerns and the Levels of Use and perhaps to explain them by means of a number of interview-data. Below we will concretize this general research design on the basis of one particular project.

In the schoolyear '80-'81 (which starts in September '80) the Ministery of Education launched the project "Renewed Vocational Secondary School". Schools could voluntarily join it. They received extra support by way of supplementary hours for teachers (up till 24 extra hours a week) and by way of external and internal facilitation.

In effect this means that the teachers in their weekly timetable got 2 to 3 hours off to prepare the concrete elaboration of the innovation for their class. A colleague got 5 to 6 hours to take care of the co-ordination within the school. In the event of certain concrete difficulties the school could turn to an external facilitator (an experienced teacher).

The project "Renewed Vocational Secondary School" consists of different innovations. Within the framework of the ongoing investigation our attention especially goes to one innovation, that is to teaching "themes", which is a kind of an integrated curriculum. This means that for 1 or 2 weeks the training focuses on the same theme (for instance traffic). All contents and activities in a certain class refer to the same theme. In co-operation with all teachers the contents are chosen, arrangements are made concerning activities to be organized, possibilities are sought in order to set up all kinds of manual activities, etc. At the end of the themes-period the internal facilitator makes an evaluation together with the teachers.

The pupils (boys and girls) involved in the project are 13 to 14 years old, most of the time they have experienced some difficulties in Primary

School and often have little motivation for the traditional graded system. Their only concern is to get a job as soon as possible and to enter the labour-process. From discussions with teachers we know that a number of them permanently look for adjusted education for these pupils.

In some twenty schools the teachers and the schoolleaders were twice interviewed. The first time a couple of months after the start of the project; the second time in the course of the following schoolyear. Thus it was possible to gain insight into the concrete implementation process and into the most important determining factors. At the same time one could gather some indications about the development of the project in a certain school. The SoC-Questionnaire for Teachers was presented on three different occasions. The first time in connection with the first interview, the second time at the end of the first project year and the third time in connection with the second interview (that is the beginning of the second project year). At this moment the data of the third session are not yet worked up.

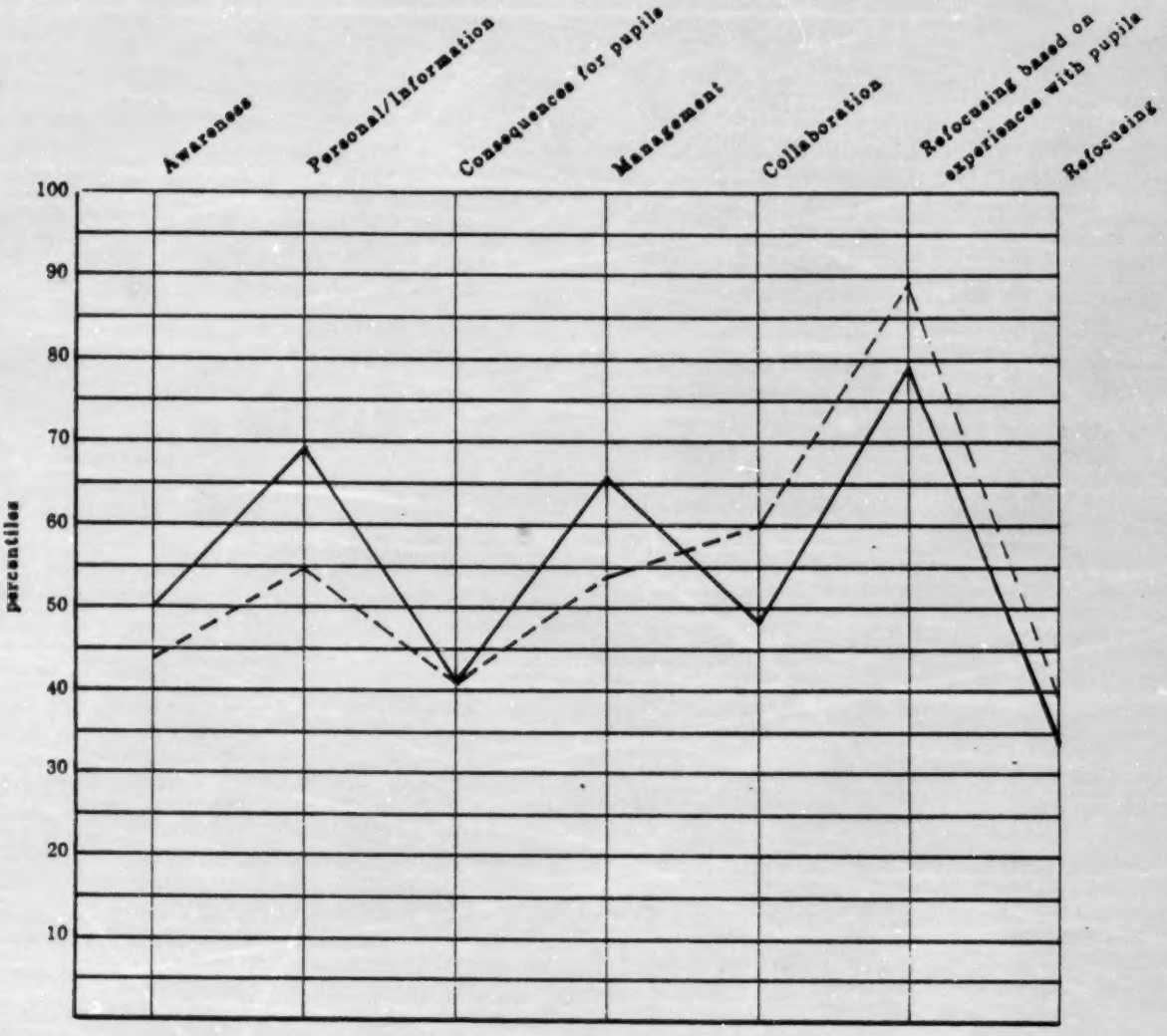
In the introduction to paragraph 4 we have already postulated that we are interested in the meaning of SoC-profiles coming from teachers involved in the implementation of a large-scale project. In other words we are looking for "typical" profiles having an indicative value for the way in which large-scale projects are realized. How large-scale projects are worked out and what factors play a role in this for this local school, can be described on the basis of the interview-data.

In the long term we hope to be able to compare some "typical" profiles and to explain them using data connected with the distinct determinants. (see figure 8). It is important to mention that in this line of thought and in the concrete analysis of the material we keep on assuming that the involvement of individual teachers in point of fact gives us an important indication about the way in which teachers experience a large-scale project.

Figure 9 contains SoC-data about 7 teachers of school 06 (beginning and end of the first project year).

Table 5 contains a survey of the involvement of the 7 teachers separately.

Figure 9 : Stages of Concern Profiles for Teachers of the Renewed Vocational Secondary School (school 06) - Dec. 1981 and June 1982



—— Dec. 1981	50	69	41	66	48	79	33 (n=7)
---- June 1982	44	55	41	54	60	89	38 (n=7)

Table 5 : Renewed Vocational Secondary School ; School 06 - SoC-Questionnaire for Teachers

Teachers	November 1980							June 1981						
	Awar.	Pers./Inf.	Conseq. Pupils	Manag.	Coll.	Refoc. exp.ps.	Refoc.	Awar.	Pers./Inf.	Conseq. pupils	Manag.	Coll.	Refoc. exp.ps.	Refoc
04706	47 °	69	11	95	44	40	60	58	66	34	96	80	74	64
05006	40	37	34	41	6	48	23	7	10	45	15	12	89	18
05106	78	78	38	82	35	66	18	78	76	20	41	17	79	28
05206	25	97	38	38	64	98	23	25	92	41	41	68	97	18
05306	86	45	69	48	51	74	38	71	37	45	43	60	71	44
05406	68	85	65	86	87	89	55	25	84	48	80	78	96	33
05506	44	54	41	38	64	83	23	25	32	34	27	89	92	60
Group	50	69	41	66	48	79	33	44	55	41	54	60	89	38

° Percentiles.

The two profiles in figure 9 cannot be defined in terms of "user" or "non-user". In both cases - that is : as well at the start as at the end of the first year - self-, task- and other-concerns can clearly be discerned. With the second presentation of the SoC-Q the self- and task-concerns diminish; on the other hand there is a rise of the other-concerns, but especially to the concerns regarding refocusing based on experiences with pupils.

When viewing the results of the teachers separately we come to the conclusion that interindividual differences clearly appear (which disappear when the group average is represented in figure 8). Apart from that it is striking that with all teachers there is a notable similarity when the profiles of the first and the second presentations are compared. The second interview still shows a high score on the subscales on which there was also a high score the first time (data about the third interview are not worked up yet).

The core question now is whether we can clarify and explain the above data - which exclusively refer to the concerns of the individual teachers - from the available interview-data. In appendix 3 a number of important statements derived from the first interview, have been brought together. The data are ordered according to the categories of figure 8.

The group profile (figure 9) of the first interview can be traced back to the fact that three teachers (05106/05206/05406) score relatively high on "Personal/Informational" and also on "Management". The high score on "Refocusing bases on experiences with pupils" is the result of the relatively high scores of four teachers (05206/05306/05406/05506).

More important is the observation that both profiles show a similar structure. So to speak one does not perceive any clear evolution. "Personal concerns", "Management concerns" and "concerns about Refocusing based on experiences with people" remain relatively high. As for the interpretation of these group profiles and the stability in the structure, it is important to elaborate on one chief characteristic of the innovation. Teaching an integrated curriculum takes place in the school involved during well traced periods. In some schools only three themes are dealt with in the course of the schoolyear; in other schools 5 or 6 themes are treated. From the interviews it appears that first of all an extra effort is needed over again to find a suitable theme, to gather the required material, but that above all managementproblems are met within class dur-

the interim periods when no themes are used. The latter especially is stressed by each teacher. This could account for the fact that teachers go on pointing out management-concerns. The relatively high scores on "Personal/Informational" can be explained from a number of interview-data which show that teachers had to start quite suddenly (without specific preparation), that they were not exactly informed about the contents of the innovation, that they kept on putting questions about their methods, that they often report initial doubts about their contribution, etc. That in those circumstances an acceptable implementation is reached all the same is most of all the result of the presence of an amount of positively influencing organizational-structural factors (see appendix 3 : The school as an organization). The high score (and the increase during the second presentation) on the subscale "refocusing based on experiences with pupils" can be understood in the light of a number of interview-data which are, however, expressed by all teachers in a very explicit way. All teachers (the board included) point to the fact that the proposed innovation is highly fit for these pupils : they are better motivated, the pupils show a great interest in the results they achieve, the number of absences during the themes-period is clearly lower than during the ordinary periods, etc. But : the question remains for all teachers whether they elaborate their education, i.e. the themes-education, on the right level, they wonder which adjustments they have to make, how they can take into account the reactions of the pupils regarding a previous theme, etc. This obvious orientation of the teachers involved towards adjusted education and their concern to highten the motivation of their pupils for the educational event explain the high score on "refocusing based on experiences with pupils".

This one example must clarify that a SoC-profile can be explained by means of additional interview-data. In this repect it was not our intention to make a causal link between a certain profile and interview-data. It was the intention, however, to develop a design through which it becomes clear, especially for facilitators, what the meaning is of some SoC-data and/or LoU-data.

Further research and analysis of already available data will have to make plain whether we can follow the course we have taken. The research design is aimed at relating a number of data - which refer to five destinct domains (see figure 8). In this way we get a broader and more differentiated insight into the complex implementation process.

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APPENDIX I Belgian-Dutch SoC-Questionnaire : overview of the seven subscales

AWARENESS (α = .769)	Rit**	Austin-Questionnaire : sta.
I have a very limited knowledge about the innovation	.73	1
At this moment I only have a vague idea of what the innovation is about.	.78	x
I don't even know what the innovation is.	.72	0
At this time I'm not very interested in the innovation.	.59	x
At this time, I am not interested in learning about this innovation.	.53	0
I am not concerned about this innovation.	.56	0
Although I don't know about this innovation, I am concerned about things in the area.	.61	0
PERSONAL/INFORMATIONAL (α = .895)		
I would like to know what resources are available if we decide to adopt this innovation.	.77	1
I would like to know how my role will change when I am using the innovation.	.79	2
I would like to discuss the possibility of using the innovation.	.64	1
I would like to know what the use of the innovation will require in the immediate future.	.77	1
I especially need exact information about this innovation	.77	x
I would like to know how my teaching or administration is supposed to change.	.74	2
I would like to have more information on time and energy commitments required by this innovation	.71	2
I would like to know who will make the decisions in the new system.	.61	2
I would like to know the exact intention of this innovation.	.68	x
At this moment I would like to get the opportunity to examine the content of the innovation quietly.	.64	x
I would like to know what other faculty are doing in this area.	.53	3
I would like to know how colleagues, involved in the innovation feel.	.54	x

x added items

** correlation between item and the total subscale.

CONSEQUENCES FOR PUPILS (α = .801)	Rit	Austin-Questionnaire : stage
Thinking about the impact on students, I have questions about the value of the innovation.	.78	x
I am concerned about how the innovation affects students.	.74	4
I wonder if the innovation has that much influance on students' performance.	.78	x
I would like to know how this innovation is better than what we have now.	.74	1
I am now concerned about the results one can obtain with students.	.70	x
MANAGEMENT (α = .876)		
It's unclear for me how to fit all the supplementary tasks, in my daily workschedule.	.82	x
I wonder if I can plan my work efficiently within the framework of the innovation.	.75	x
I'm concerned about the fact that the innovation entails more work.	.77	x
I think that those who propose the innovation expect too much of me.	.74	x
I am concerned about not having enough time to organize myself each day.	.71	3
I am concerned about time spent working with non-academic problems related to this innovation.	.70	3
Coordination of tasks and people is taking too much of my time.	.63	3
I am concerned about my inability to manage all the innovation requires.	.60	3
I am concerned about conflict between my interests and my responsibilities.	.59	3
I am completely occupied with other things.	.54	0

COLLABORATION (α = .845)	Rit	Austin-Questionnaire : stag
I would like to cooperate with colleagues to implement the innovation	.79	x
I would like to coordinate my effort with others to maximize the innovation's effects.	.76	5
I would like to help other faculty in their use of the innovation.	.75	5
I would like to familiarize other departments or persons with the progress of this new approach.	.71	5
Using my knowledge and experience, I would like to help other colleagues who haven't started the innovation yet.	.70	x
I would like to develop working relationships with both our faculty and outside faculty using the innovation.	.68	5
I am now especially concerned about the improvement of the collaboration with my colleagues.	.38	x
At this moment I would like to discuss the possibilities of the innovation more with my colleagues.	.57	x
REFOCUSING BASED ON EXPERIENCES WITH PUPILS (α = .730)		
I would like to use feedback from students to change the program.	.77	4
I would like to modify our use of the innovation based on the experiences of our students.	.73	6
I would like to know how my students evaluate my approach of the innovation.	.68	x
I would like to excite my students about their part in this approach.	.67	4
I would like to determine how to supplement, enhance, or replace the innovation.	.62	6
REFOCUSING (α = .744)		
I know about more simple structures and instructional approaches to obtain the same results.	.73	x
I now know of some other approaches for some parts of the innovation that might work better.	.73	x
I now know of some other approaches that might work better.	.66	6
I would like to revise the innovation's instructional approach	.74	6
I would like to modify the concrete use of the innovation in our school.	.65	x

APPENDIX 2 Follow-up data

Table a : Stages of Concerns : Teachers of Renewed Secondary Schools in February 1980 and November 1980 (n = 73)

Stages	February 1980 groups mean	Pc	November 1980 groups mean	Pc	T	signif.
Awareness	1.60	47	1.30	40	3.04	0.003
Personal/ Informational	4.15	48	3.40	33	5.02	0.000
Conseq. for pupils	4.29	45	4.25	45	0.20	0.839
Management	3.28	60	2.84	48	2.74	0.008
Collaboration	4.01	57	4.29	64	- 2.00	0.050
Refoc., exp. pupils	3.48	40	4.06	55	- 3.58	0.001
Refocusing	2.22	50	2.20	50	0.16	0.870

Table b : Stages of Concerns : Teachers of Renewed Secondary Schools in February 1980 and October 1981 (n = 58)

Stages	February 1980 groups mean	Pc	October 1981 groups mean	Pc	T	signif.
Awareness	1.67	47	1.29	40	3.11	0.003
Personal/ Informational	4.08	46	3.07	28	4.71	0.000
Conseq. for pupils	4.20	45	4.10	43	0.56	0.581
Management	3.32	57	2.80	48	2.42	0.019
Collaboration	3.95	57	4.13	60	- 1.33	0.189
Refoc., exp. pupils	3.50	40	4.03	55	- 2.70	0.009
Refocusing	2.38	55	2.75	60	- 1.92	0.060

APPENDIX 3 Analysis of the first interview - School 06 -

The innovation : characteristics as perceived by teachers

1. All teachers (n=7) indicate the positive reactions of the pupils : they show more interest, are better motivated, are less absent.

2. All teachers (n=7) regard the innovation as an "adapted" innovation considering the character of the pupils and the problems they experienced in the past.

3. The innovation leads to a diversity in activities ; also activities beyond the school are possible (n=4).

4. The innovation results in improvements in the relations between pupils and teachers (n=4).

5. The innovation has as a result that we must dispose of more material (especially documentation) ; most of the time we must gather the required material ourselves. Finding the necessary material does not always proceed smoothly (n=5).

6. The change in the daily class practice is considered to be a minimum (n=3).

7. The nature of the innovation makes arrangements between teachers necessary (n=1).

8. As a teacher one can develop a theme for one class ; this is not possible, however, for all classes in which one teaches (n=1).

9. During the periods between the theme-weeks a number of problems arises : pupils are less willing to follow lessons according to the traditional pattern (n=4).

The individual teacher : evaluation, problems, concerns

1. All teachers (n=7) are convinced of the necessity of the proposed innovation.

2. One has already acquired some experience earlier with this innovation (n=3).

3. All teachers (n=7) point to initial difficulties (insufficient information; "we did not know exactly how to start"), but also to a positive development ("by starting and being engaged in it, we succeeded").

4. All teachers (n=7) think that the innovation causes much additional work.

5. All teachers (n=7) evaluate the innovation positively, considering the positive development on the side of the pupils (see 1, the innovation).

6. One keeps wondering all the time : "am I doing well ?" "is my education adjusted to the level of the pupils ?" (n=6).

The school : organizational and structural components

1. Innovation-history of the school

1.1. One teacher from the school in question is a member of a (national) workgroup for the innovation of Vocational Education.

1.2. One has already dealt with project-education in the school before. According to one teacher there has been little innovation in the school so far. All teachers (n=7) point out that it is the first time that an innovation has been implemented in the school in a systematic way.

1.3. A number of teachers (n=?) follow all kinds of in-service-training-activities regularly.

1.4. The school has contacts with other schools where other innovations are realized (n=1).

2. Innovation-willingness of the school, of the team

2.1. Among all teachers the insight is present about the necessity of innovation in Vocational Education (n=7).

2.2. All teachers (n=7) indicate a positive willingness of the teachers.

2.3. Willingness is kept lively by means of information about developments in Vocational Education via the teacher who is a member of the national workgroup (see 1.1.).

3. Co-operation in the team

3.1. The teachers involved engage in concrete co-operation during the work-meetings (see interventions : 3).

3.2. The co-operation is experienced by all teachers (n=7) as positive on the one hand, but also as necessary.

3.3. The other teachers - who do not co-operate in the theme-education - are informed now and are invited to certain activities.

3.4. All teachers claim that they have had much support from each other, especially at the beginning of the schoolyear.

4. Role of the board

4.1. The headmistress has taken the initiative, in consult with the teacher who is a member of the national workgroup (see intervention : 1).

4.2. She has approached teachers individually (see intervention : 1).

4.3. She claims that she has informed herself as well as possible.

4.4. The headmistress is present at all meerings of the teachers.

4.5. According to all teachers (n=7) she gives her support as regards content as well as moral condition.

4.6. The headmistress herself is convinced of the necessity of the innovation.

4.7. The headmistress is considered to be a great support by all teachers (n=7).

Interventions : as perceived by the teachers

1. Before the beginning of the schoolyear the headmistress approached teachers about whether or not the school would paricipate in the project ; she especially addressed these persons whom she expected to have a positive attitude towards the project (announcement by the headmistress).

2. A general introductory meeting was organized for the teachers involved in order to introduce the project. General information was presented, to which the presentation of some examples of elaborated themes was added (elaborated in other schools).

3. In the course of the schoolyear work-meetings are regularly organized at which the theme is chosen together, at which arrangements are made concerning the contents to be discussed ("in what way can I contribute from my own subject ?") and at which the implementation of the theme is evaluated.
   These regularly organized work-meetings are regarded as very useful by all teachers (n=7).

4. The internal pedagogic facilitator co-ordinates the activities. All teachers (n=7) have a positive attitude towards the facilitator in question.

5. The external pedagogic facilitator has only been present at the school at the beginning of the project. Considering the positive development in the school itself, he thought his interventions superfluous.

6. No specific in-service-training-activities were organized for this innovation.

7. A teacher, member of a national workgroup of the innovation of Vocational Education, is informed about all kinds of developments and reports about them at the school. Thus there is a permanent input of information from outside.

Policy

1. The government (i.c. Ministery of Education) has put a number of hours at the disposal of each school.

2. The government suggests to appoint an internal facilitator.

3. Schools can make an appeal to an external facilitator.

4. It is the intention to test the project in a restricted number of schools for two years and to generalize it afterwards.

5. The teachers (n=7) hope that the project may continue, although this is not clear to them.